

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior versions, and listings, of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) A digital image processing device comprising:
extraction means for extracting at least one document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the at least one document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than all the document images that are present on the scanned document;
generating means for generating character code data for character image data within the at least one document block;
reconstruction means for reconstructing the at least one document block in a specific shape based on the extracted at least one document block; and
layout means for laying out the character code data corresponding to the character code generated by the generating means within the at least one reconstructed document block to create a layout image ~~in a computer for presentation of the image to a user.~~

2. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the extraction means extracts a plurality of document blocks, and the reconstruction means arranges the plurality of extracted document blocks into a single block reconstructed to the specific shape.

3. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline.

4. (Previously Presented) A digital image processing device as claimed in claim 3, further comprising headline character arrangement means for arranging character code data corresponding to the character image of the headline at a specific position within the at least one reconstructed document block.

5. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the reconstruction means adjusts a vertical or horizontal dimension of the at least one document block to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the at least one document block.

6. (Previously Presented) A digital image processing device as claimed in claim 1, further comprising file generation means for generating an electronic file storing the character code data laid out by the layout means.

7. (Previously Presented) A digital image processing device as claimed in claim 1, further comprising a printer for printing the character code data laid out by the layout means on a recording substrate.

8. (Previously Presented) A digital image processing device as claimed in claim 1, further comprising a reader for optically reading an image of a document to obtain the image data to be processed.

9. (Currently Amended) A computer readable medium for storing a program that causes a computer to:

extract at least one document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the at least one document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than are present in the scanned document;

generate character code data for character image data within the at least one document block;

reconstruct the at least one document block in a specific shape based on the at least one extracted document block; and

laying out the generated character code data within the at least one reconstructed document block to create a layout image ~~in a computer for presentation of the image to a user.~~

10. (Previously Presented) The program as claimed in claim 9, wherein a plurality of document blocks are extracted at the step of extracting, and the plurality of extracted document blocks are arranged into a single block reconstructed to the specific shape at the step of reconstructing.

11. (Previously Presented) The program as claimed in claim 9, wherein the specific image includes a character image of a headline and a character image of body text corresponding to the headline.

12. (Previously Presented) The program as claimed in claim 11, wherein the image processing further comprises a step of arranging the character code data corresponding to the character image of the headline at a specific position within the at least one reconstructed document block.

13. (Previously Presented) The program as claimed in claim 9, wherein at the step of reconstructing a vertical or horizontal dimension of the at least one document block is adjusted to a length approximating a natural integer multiple of a length of one column of multiple columns formed within the at least one document block.

14. (Previously Presented) The program as claimed in claim 9, wherein the image processing further comprises a step of generating an electronic file storing the character code data laid out at the step of laying out.

15. (Previously Presented) The program as claimed in claim 9, wherein the image processing further comprises a step of printing on a recording substrate the character code data laid out at the step of laying out.

16. (Previously Presented) The program as claimed in claim 9, wherein the image processing further comprises a step of reading an image of a document to obtain the image data to be processed.

17. (Currently Amended) A digital image processing method comprising the steps of:

extracting at least one document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the at least one document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than are present in the scanned document;

generating character code data for character image data within the at least one document block;

reconstructing the at least one document block in a specific shape based on the extracted at least one document block; and

laying out the generated character code data within the reconstructed at least one document block to create a layout image ~~in a computer for presentation of the image to a user.~~

18. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the extracted at least one document block is a marked portion of the entire image.

19. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the extracted at least one document block is a headline and body text of the entire image.

20. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the extracted at least one document block also includes a photographic image area that is extracted and laid out with the character code data.

21. (Previously Presented) The program as claimed in claim 9, wherein the extracted at least one document block is a marked portion of the entire image.

22. (Previously Presented) The program as claimed in claim 9, wherein the extracted at least one document block is a headline and body text of the entire image.

23. (Previously Presented) The program as claimed in claim 9, wherein the extracted at least one document block also includes a photographic image area that is extracted and laid out with the character code data.

24. (Previously Presented) A digital image processing method as claimed in claim 17, wherein the extracted at least one document block is a marked portion of the entire image.

25. (Previously Presented) A digital image processing method as claimed in claim 17, wherein the extracted at least one document block is a headline and body text of the entire image.

26. (Previously Presented) A digital image processing method as claimed in claim 17, wherein the extracted at least one document block also includes a photographic image area that is extracted and laid out with the character code data.

27. (Currently Amended) A digital image processing device comprising:
an extraction circuit adapted to extract at least one document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the at least one document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than are present in the scanned document;

a generating circuit adapted to generate character code data from character image data within the at least one document block;

a reconstruction circuit adapted to reconstruct the at least one document block in a specific shape based on the extracted at least one document block; and

a layout circuit adapted to lay out the character code data within the reconstructed at least one document block to create a layout image ~~in a computer for presentation of the image to a user.~~

28. (Previously Presented) A digital image processing device as claimed in claim 1, wherein an area of the reconstructed at least one document block is the same as a total area of the extracted at least one document block.

29. (Previously Presented) The program as claimed in claim 9, wherein an area of the reconstructed at least one document block is the same as a total area of the extracted at least one document block.

30. (Previously Presented) A digital image processing method as claimed in claim 17, wherein an area of the reconstructed at least one document block is the same as a total area of the extracted at least one document block.

31. (Previously Presented) A digital image processing device as claimed in claim 27, wherein an area of the reconstructed at least one document block is the same as a total area of the extracted at least one document block.

32. (Currently Amended) A digital image processing device comprising:

at least one circuit for;

extracting at least one document block that is digital image data representing a portion of a scanned document, the at least one document block includes document image data and background image data, the document image data representing some of the document images on the scanned document, wherein all the document image data in the extracted at least one document block represents fewer document images than are present in the scanned document;

generating character code data from character image data within the at least one document block;

reconstructing the at least one document block in a specific shape based on the at least one extracted document block; and

laying out the character code data within the reconstructed at least one document block to create a layout image in a computer for presentation of the image to a user.

33. (Currently Amended) A digital image processing device comprising:

at least one circuit for;

extracting at least one document block that is digital image data representing a portion of a scanned document, the scanned document having document images and a background, the at least one document block includes document image data and background image data, the document image data represents some of the document images on the scanned document, wherein all the document image data in the at least one document block represents fewer document

images than are present in the scanned document, the at least one document block being identified by a perimeter and containing a specific image to be processed, the perimeter being established by the user beforehand;

generating character code data for character images within the at least one document block;

reconstructing the at least one document block in a specific shape based on the at least one extracted document block; and

laying out the character code data within the reconstructed at least one document block to create a layout image ~~in a computer for presentation of the image to a user.~~

34. (Previously Presented) The digital image processing device of claim 33, wherein the perimeter is established by the user before the extracting step on an original document using a drawing instrument.

35. (Canceled)

36. (Canceled)

37. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the entire image includes at least one image in an area outside the at least one document block.

38. (Previously Presented) The program of claim 9, wherein the entire image includes at least one image in an area outside the at least one document block.

39. (Previously Presented) A digital image processing method as claimed in claim 17, wherein the entire image includes at least one image in an area outside the at least one document block.

40. (Previously Presented) A digital image processing device as claimed in claim 27, wherein the entire image includes at least one image in an area outside the at least one document block.

41. (Canceled)

42. (Previously Presented) A digital image processing device as claimed in claim 1, wherein the character code includes at least font size.

43. (Previously Presented) A computer readable medium as claimed in claim 9, wherein the character code includes at least font size.

44. (Previously Presented) A digital image processing method as claimed in claim 17, wherein the character code includes at least font size.

45. (Previously Presented) A digital image processing device as claimed in claim 27, wherein the character code includes at least font size.

46. (Previously Presented) A digital image processing device as claimed in claim 32, wherein the character code includes at least font size.

47. (Previously Presented) A digital image processing device as claimed in claim 33, wherein the character code includes at least font size.